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Yanagihara Case 52

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COG ASSEMBLY AND CONNECTING MATERIAL
TO BE USED THEREIN

ABSTRACT

A chip-on-glass (COG) assembly, in which the electrodes of the semiconductor chips (3) are held in direct connection with the corresponding electrodes on the substrate glass circuit board (1), utilizes a layer (5) of a connecting material for bonding and connecting the semiconductor chip (3) with the substrate board (1). The connecting material can provide a reduced stress concentration at the boundaries between the binder layer (5) and the chip (3) and between the binder layer (5) and the glass board (1), even at higher adhesive strengths, bringing about less deformation, such as warping, of the resulting bonded assembly, even when using a thinner substrate glass board, and provides a superior bonding strength and excellent electroconductive performance. The connecting material is made up of, on the one hand, an adhesive component (6) containing a thermosetting resin and, on the other hand, electroconductive particles (7) and has a characteristic feature that a tensile elongation percentage at 25°C, after having been cured, is at least 5%.